

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/31199

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : H04B 7/212, 3/04; H04L 27/06; H04N 5/76; H04Q 7/20  
US CL : 455/456; 375/234, 344; 386/83; 370/337

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
U.S. : 455/456; 375/234, 344; 386/83; 370/337

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
EAST

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,206,886 A (BINGHAM) 27 April 1993 see fig.2 and col.6, lines 35-67 and col.9, lines 23-37	1-10
Y	US 6,266,534 B1 (RAITH et al) 24 July 2001 see figs. 5-6 and col.7, lines 50-67 and col.8, lines 10-35	1-10
Y	US 4,800,573 A (CUPO) 24 January 1989 see fig.1 and column 3, lines 42-67 and col.4,1 lines 1-40	1-10
Y	US 5,467,197 A (HOFF) 14 November 1995 see fig.4 and column 8, lines 1-67	1-10

<input type="checkbox"/>	Further documents are listed in the continuation of Box C.	<input type="checkbox"/>	See patent family annex.
*	Special categories of cited documents:		
"A"	document defining the general state of the art which is not considered to be of particular relevance	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"B"	earlier application or patent published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search <u>06 January 2004 (06.01.2004)</u>	Date of mailing of the international search report <u>05 FEB 2004</u>
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703)305-3230	Authorized officer  Emmanuel Bayard Telephone No. 703 305-9574 